



**UNITED STATES DEPARTMENT OF COMMERCE
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| SERIAL NUMBER | FILING DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NO. |
|---------------|-------------|-----------------------|---------------------|
| 08/071,091 | 12/12/88 | CHOWNE | 11-43,457 |

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01/11/89

| EXAMINER | |
|-------------|--------------|
| PERCIVAL H. | |
| ART UNIT | PAPER NUMBER |
| 1106 | 8 |

DATE MAILED: 03/04/87

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents

Office Action Summary

Application No.

08/571,091

Applicant(s)

Irgang et al.

Examiner

Nadine Preisch

Group Art Unit

1106



☒ Responsive to communication(s) filed on Nov 29, 1996

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2-14 is/are pending in the application.

Of the above, claim(s) 11-14 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 2-14 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1106

DETAILED ACTION

Election/Restriction

Newly submitted claims 11-14 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The product as claimed can be made by a materially different process, such as a pyrogenic method.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-15 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Rejection Under 35 USC 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this

Art Unit: 1106

section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 2-10 stand rejected under 35 U.S.C. § 103 as being unpatentable over

Bailar(Comprehensive Inorganic Chemistry, Ed: J.C. Bailar Jr., Pergamon Press, 1973, pp. 424-426) or Kortbeek et al.(4,440,875).

Applicants are claiming a catalyst or carrier which consists essentially of monoclinic zirconium dioxide prepared by precipitation of a zirconium salt with ammonia. The process comprises the addition of a zirconyl nitrate or zirconyl chloride to an aqueous ammonia solution at a decreasing pH from 14 to 6, followed by drying, calcination, and pelletization.

The Bailar reference teaches a composition consisting of monoclinic zirconium dioxide.

In view of the foregoing, the examiner recognizes applicants' claims as product by process claims. Furthermore, the examiner notes that the applicants' composition is essentially the same as the composition disclosed in the Bailar reference. Since applicants' claims are product by process claims, they are not limited to the manipulations of the recited steps, but only to the structure implied by the steps. See for example, In re Thorpe, 777F.2d 695, 227 USPQ 964, 966(Fed. Cir. 1985) or In re Marosi, 218 USPQ 289(Fed. Cir. 1983).

Moreover, the reference Kortbeek et al.(4,440,875) teaches the preparation of a zirconium dioxide catalyst prepared by precipitation of a zirconium salt with ammonia. For example, see column 1, lines 62-68. The process comprises the addition of ammonia to an aqueous zirconyl

Art Unit: 1106

chloride solution, until the pH of the solution is in the range of 7 to 10. At this point, the precipitate is separated from the solution and calcinated. See for example, column 2, lines 1-4.

The examiner notes that the Kortbeek reference teaches that the ammonia is added to the zirconyl chloride solution instead of vice versa, as in applicants' claim 1.

In view of the foregoing, it is the examiner's position that it would have been obvious to one of ordinary skill in the art that the order of solution addition pertaining to zirconyl chloride and ammonia does not matter, since the same pH could be achieved by slow addition with mixing in any order. Moreover, applicants' examples set forth within the specification are not comparative to the closest prior art of Kortbeek et al.(4,440,875).

Furthermore, the examiner notes that the zirconium dioxide claimed in the pending application is monoclinic. Although the prior art of Kortbeek et al.(4,440,875) does not mention any particular structural limitation, the monoclinic property is presumed to be inherent, since the claimed and prior art products are produced by substantially the same process. For example, see In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Moreover, applicants' claims say nothing about any added precaution step taken to achieve monoclinic zirconium dioxide.

Therefore, the differences between the subject matter sought to be patented the prior art are such that the subject matter as a whole would have been obvious to one of ordinary skill in the art.

The examiner has further considered the limitations of the dependent claims, but considers them within the purview of the prior art.

Art Unit: 1106

Response to Arguments

Applicant's arguments filed 11-29-96 have been fully considered but they are not persuasive.

With reference to the rejection under 35 U.S.C. § 103 as being unpatentable over Bailar(Comprehensive Inorganic Chemistry, Ed: J.C. Bailar Jr., Pergamon Press, 1973, pp. 424-426) or Kortbeek et al.(4,440,875), applicants argue : (1) there is no evidence to support the examiner's conclusion regarding the order of addition of zirconyl nitrate, (2) that the examiner's statement that the prior art uses substantially the same process because proof of inherency must be given and (3) that applicants' comparative Example B on page 6, lines 20-38 of the specification is sufficiently close to the catalyst disclosed by the reference of Kortbeek et al.(4,440,875) for comparison purposes.

With respect to applicants arguments (1) and (2), the examiner has stated that the claims are considered to be product by process. Since the applied references teach the same product they fail to patentably distinguish over the applied art.

Furthermore, the examiner disagrees with applicants' argument (3) that Comparative Example B is sufficiently close to the catalyst disclosed in the applied art to show. ^{unexpected practical results.} The examiner takes this position because the catalyst disclosed by the reference of Kortbeek et al.(4,440,375) was made with different reactants and heating ranges than applicants' Comparative Catalyst B on

Art Unit: 1106

page 6, lines 20-38 of the specification. Furthermore, comparative results are not disclosed by applicants that support a conclusion of unexpected superior results comparing applicants' claimed catalyst to the catalyst of the closest prior art. Therefore, applicants' product by process claims fail to patentably distinguish over the applied art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Preisch whose telephone number is (703) 305-2667. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

February 28, 1997

N.P.

NP


GLENN A. CALDAROLA
PRIMARY EXAMINER
GROUP 1100